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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,342	02/18/2004	Daniel D. Bartnick	081583-0293	9235

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EXAMINER	
HENDRICKS, KEITH D	
ART UNIT	**PAPER NUMBER**
1761	

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/781,342	BARTNICK ET AL.	
	Examiner	Art Unit	
	Keith Hendricks	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/04; 3/05, 2/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

i) The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11-15 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the production of a natural cocoa or vanilla extract, does not reasonably provide enablement for the production of any random type of extract from any random "solid botanical material". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

Paragraph 0009, at page 4 of the specification, states:

> The present methods may be used to produce natural flavor extracts from a variety of botanical materials. While the present methods are illustrated herein by reference to descriptions of the production of natural vanilla and cocoa extracts, the methods can also be used to produce extracts of other botanical materials such as tea leaves, coffee beans and carob beans.

However, the specification does not provide sufficient guidance toward the selection of appropriate and effective alternative starting botanical materials. The specification does not state which parts of other plants may be utilized, for example from the roots, stems, leaves, flowers, fruits, or seeds/pods/beans. The instant specification demonstrates the use of cacao (cocoa) beans and vanilla beans alone. The instantly-claimed method utilizes an aqueous alcohol (including polyol) solvent, yet the specification fails to disclose which types of plant materials may be utilized in the claimed process, such that a functional extract results. Only certain substances within plants would be expected to be soluble in an aqueous alcohol solution, yet the instant specification does not provide sufficient guidance regarding the appropriate and necessary selection of plant materials and protocol, beyond those of the exemplified cacao/vanilla bean extract. Finally, the specification does not provide a sufficient description of the desired resultant "natural botanical extract", i.e. regarding whether this is a flavor, odor, colorant, pharmaceutical compound, etc. beyond those of the exemplified cacao/vanilla bean extract, such that the skilled artisan would have a base level of knowledge of that which is to be produced by the present method (and that which is part of the instant product claims, as well).

ii) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8, 11-15 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-8, 11-15 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: those necessary to arrive at the final extract product. The claims provide simple term "treating", but do not set forth how one skilled in the art is to arrive at the end result, i.e. the extract, as no extraction process steps such as filtration, separation, centrifugation, collection, etc. are set forth in the claim.

Claims 2-4 lack a clear antecedent basis within the claims for the recitation of the phrase "the cocoa beans" and "the cocoa bean nibs". These terms do not appear in claim 1 from which they depend.

Claim 5 is indefinite for the recitation of the step of "further... increasing the temperature to at least about 170°F." It is unclear at what point this is to be carried out, especially in light of the fact that no actual steps are set forth in the independent "treatment" claim. As it stands, it appears that claim 5 fails to further limit (i.e. improperly broadens) claim 3 from which it depends, as claim 3 states that the temperature is to be "about 70 to 150°F."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-6, 9-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimazaki et al. (JP 70-79749).

A computer-generated translation of the Shimazaki et al. patent is provided. Shimazaki et al. disclose a method for producing an extract of cocoa nib, which is used to flavor a chocolate drink. The cocoa nib is "treated with at least one of the following enzymes: glucoamylase, protease, pectinase, lipase, cellulase, and a cell-wall-digesting enzyme" (abstract). At paragraph 0009, the reference discloses that cocoa nibs serve as the extract material, and "in addition, when extracting, extraction efficiency will become good if water-soluble organic solvents, such as... ethyl alcohol... and propylene glycol, are added to water" (sic). Paragraph 0010 explains that the cocoa nibs are preliminarily heated to 80°C to kill any bacteria present, followed by the extraction method with the enzyme. "Enzyme processing time is good in 3-4 hours", and the resultant extract may be heated, which "inactivates an enzyme". The examples 1-3 (par. 0013-0015) demonstrate the addition of the enzyme and reaction at 60°C or 70°C (140 or 158°F, respectively), followed by heating to 80°C or 100°C (176 or 212°F, respectively) to inactivate the enzyme.

Thus, the claimed invention is anticipated by the reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimazaki et al.

Shimazaki et al. is taken as cited above. Although the reference states that "enzyme processing time is good in 3-4 hours", one of ordinary skill in the art would have readily understood that enzymatic reaction times are dependent upon a number of variables, including enzyme type, activity and source, as well as time, temperature, and substrate conditions. Regarding instant claim 4, it would have been obvious to one of ordinary skill in the art to have selected a shorter reaction time, for purposes of efficiency and time savings. To this point, it is noted that the claimed reaction time period of "about .25 to 2 hours" is within reasonably proximity to the reference's range of 3-4 hours, and thus this would not have involved an inventive step, nor does it provide a patentable distinction to the claimed invention.

Regarding instant claims 7-8, the reference does not specifically provide a percentage of polyol within the aqueous medium. However, as the reaction is performed in water, thus making it an aqueous medium, and the ethyl alcohol or propylene glycol is added thereto, one of ordinary skill in the art would have readily understood that an amount of polyol of 50% or less should be added in order to maintain a water-based solution. Further, in order to maintain enzyme activity within the solution, the relative amounts of the two substances, water and propylene glycol, would have been obvious to one of ordinary skill in the art, based upon these facts, and would not have involved an inventive step to determine.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 11-15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5 and 17-18 of copending Application No. 10/706,309. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both directed to methods for "treating a botanical material" with an aqueous medium comprising a glycosidase and an alcohol (polyol or otherwise), as well as the products resulting therefrom.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Claim 20 is free of the prior art of record. It is directed to the treatment of cocoa solids at a temperature of about 70-180°F, within an aqueous medium which comprises an alcohol and/or polyol, as well as an "enzyme material [which] has cellulase activity, hemicellulase activity, and galactomannanase activity." While a few such enzyme compositions were known in the art and commercially available, and while the use of cellulase or hemicellulase enzyme preparations in cacao bean processing was generally known, there was no teaching or suggestion for one of ordinary skill in the art to select and utilize this particular enzyme composition within the process disclosed by Shimazaki et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (571) 272-1401. The examiner can normally be reached on M-F (8:30am-6pm); First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KEITH HENDRICKS
PRIMARY EXAMINER